BEFORE THE ENERGY COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of:	Docket No. 06-IEP-1A
Preparation of the 2007 Integrated Energy Policy Report (IEPR)	

COMMENTS OF THE COGENERATION ASSOCIATION OF CALIFORNIA AND THE ENERGY PRODUCERS AND USERS COALITION ON THE DRAFT 2007 IEPR

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The Cogeneration Association of California[1] (CAC) and the Energy Producers and Users Coalition[2] (EPUC) (jointly, CAC/EPUC) submit these comments to the California Energy Commission (Energy Commission). These comments on the 2007 Draft Integrated Energy Policy Report (IEPR) are submitted pursuant to the September 21, 2007 Workshop Notice.

I. INTRODUCTION AND SUMMARY

The Energy Commission's strong support for Combined Heat and Power

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[1] CAC represents the power generation, power marketing and cogeneration operation interests of the following entities: Coalinga Cogeneration Company, Mid-Set Cogeneration Company, Kern River Cogeneration Company, Sycamore Cogeneration Company, Sargent Canyon Cogeneration Company, Salinas River Cogeneration Company, Midway Sunset Cogeneration Company and Watson Cogeneration Company.

[2] EPUC is an ad hoc group representing the electric end use and customer generation interests of the following companies: Aera Energy LLC, BP West Coast Products LLC, Chevron U.S.A. Inc., ConocoPhillips Company, ExxonMobil Power and Gas Services Inc., Shell Oil Products US, THUMS Long Beach Company, Occidental Elk Hills, Inc., and Valero Refining Company – California.

(CHP)[3] in the Draft IEPR continues the 2005 IEPR's clear policy preference for these resources, particularly larger and more efficient CHP facilities. The Draft IEPR could benefit from greater specificity in some areas, however, to ensure that CHP is not lost in the broader Distributed Generation (DG) discussion. These comments note the areas where greater specificity is needed. The comments also address the Draft IEPR's goal of elimination of departing load charges for CHP and DG projects alike. Information is provided on the current state of new non-bypassable charges (NBCs) and the comments suggest concrete steps for the Energy Commission to take now to further this goal.

These comments again correct SCE's misleading but oft-repeated statement that only approximately 5% of CHP Qualifying Facilities (QFs) achieve 80% efficiency levels. Using a Lower Heating Value (LHV) basis, approximately 12% of CHP QFs on SCE's system achieve an 80% efficiency standard. Moreover, due to the largest CHP projects' great efficiencies, on a weighted average basis, all CHP QFs on SCE's system achieve an extraordinary 73% efficiency level (LHV). SCE's point on the need for efficient generation is well taken, however. Non-CHP units and non-QF resources in the utilities' portfolio should be held to an efficiency standard.

Notably, when compared properly on an "apples-to-apples" basis, CHP units will achieve greater efficiencies than bulk utility power. The Draft IEPR, however, suggests that large CHP export power be placed on the same footing as "bulk utility power"; this suggestion on the need for equal treatment appears to

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[3] These comments use the terms cogeneration and combined heat and power (CHP) interchangeably.

be a well-intentioned effort to enable unimpeded CHP power exports. Large CHP export power, however, consistent with established Energy Commission policy, should be treated as a preferred Loading Order resource over bulk utility power, as either energy efficiency or DG, as noted in the Draft IEPR.

The Draft IEPR's brief discussion on the CPUC's long-awaited final QF pricing and policy decision (D.07-09-040) would benefit from updating, as proposed herein. Continued Energy Commission support for CHP resources is requested. The difficulties with the Draft IEPR's recommendation to allow CHP projects to find customers for their power in the wholesale market are explained; in today's market there are only three realistic buyers: PG&E, SCE and SDG&E. Moreover, these buyers generally only purchase small quantities in the market.

Two necessary conditions are detailed for the Draft IEPR's proposal for IOU procurement of natural gas for CHP: first, such a program must be voluntary – that is, at the option of the CHP customer; and second, the program should not lead to additional nonbypassable charges which discourage CHP investment and undermine long-term CHP viability.

Finally, a specific recommendation on Greenhouse Gas is proposed that ties into the Draft IEPR's textual discussion of CHP:

- *adopting GHG measures and regulations that fully reflect the benefits of CHP when compared with separate production of thermal and electric energy.*

II. DISCUSSION

A. Areas Where Greater Specificity Is Needed.

The Draft IEPR continues the clear Energy Commission policy favoring CHP of all sizes, with a particular emphasis on large CHP. The 2005 IEPR recognized large CHP as providing significant benefits and recognized large CHP's proper place in the loading order. As currently drafted, the Draft IEPR could benefit from greater specificity to ensure that large CHP issues are not lost in the treatment of DG. The Draft IEPR in places uses DG and CHP in a manner that is not clear. If the Draft IEPR means "distribution connected facilities" for DG, then some of the recommendations need to be specifically modified to apply to large scale CHP, as well.

The 2005 IEPR recognized the benefits of cogeneration, large cogeneration in particular, stating:

> ⇒ *CHP, or combined heat and power (CHP), is the **most efficient and cost-effective form of DG**, providing numerous benefits to California including reduced energy costs, more efficient fuel use, fewer environmental impacts, improved reliability and power quality, locations near load centers, and support of utility transmission and distribution systems.* (IEPR, at 76 (emphasis added));

Further, the 2005 IEPR recognized the proven benefits of large cogeneration and recommended that all cogeneration have its own place, separate from DG, in the loading order. (2005 IEPR, at 78) The 2005 IEPR also warned that cogeneration issues might be lost among consideration of broader DG issues. (Id.)

A few simple modifications should sufficiently clarify the Energy Commission's intent to include large CHP, regardless of size or interconnection

voltage. As modified, the Draft IEPR would read (insertions underlined; deletions ~~stricken through~~):

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- *Distributed Generation (DG) and combined heat and power (CHP), regardless of size or interconnection voltage, are valuable resources options for California. This IEPR explicitly includes CHP resources, regardless of size or interconnection voltage, as DG.*

- *The CPUC and the Energy Commission should work cooperatively to eliminate all nonbypassable charges for CHP and DG and standby reservation charges for DG.*

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- *This use of nonbypassable charges chills the market for DG and CHP projects, undermining the potential benefits these projects offer both to the environment and California's electricity system.*

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- *The CPUC and the Energy Commission should work cooperatively to eliminate all nonbypassable charges for DG and CHP, regardless of size or interconnection voltage, and standby reservation charges for DG.*

- *The CPUC should develop a DG portfolio standard, including CHP regardless of size or interconnection voltage, for electricity utility procurement plans. Alternatively, the utilities could be required to treat DG and CHP, regardless of size or interconnection voltage, like efficiency programs.*

B. The 2007 IEPR Goal of Eliminating NBCs Should Be Actively Pursued by the Energy Commission in the CPUC's Ongoing Long Term Procurement Plan Proceeding (R.06-02-013).

As recognized in the Draft IEPR, a remaining barrier to the Energy Commission's goals for future CHP installations is the continued application of escalating departing load charges. (Draft IEPR, at 193) These new departing load charges are not quantified anywhere; indeed, they are unquantifiable. The potential application of new NBCs related to approximately 6,000 MW of normal

course of business utility procurement discourages development of new CHP facilities. It is impossible to estimate the potential impact of the procurement NBCs on any new CHP project; the chilling impact of that uncertainty cannot be overstated. The Energy Commission should actively support an exemption from these charges for customer generation departing load served by CHP and DG installations, as proposed by EPUC.

Track 3 of the CPUC's ongoing long term procurement plan proceeding (R.06-02-013) is addressing questions of implementation of these new utility NBCs, including the proposed CHP and DG exemption from these charges. The Energy Commission should encourage the CPUC to adopt the proposed exemption for CHP from the new procurement NBCs in furtherance of the IEPR goals.[4] "*This use of nonbypassable charges chills the market for DG [and CHP] projects, undermining the potential benefits these projects offer both to the environment and California's electricity system.*" (Draft IEPR, at 193 (proposed insertion underlined))

The 2007 IEPR goal of elimination of departing load charges will likely be opposed by the IOUs. As the Draft IEPR explains, however, "*Given the expected growth in electricity demand and the cyclical nature of the procurement process, it is possible to adjust resource procurement to load changes over time.*" (Draft IEPR, at 193) The Energy Commission is urged to support CHP and DG efforts to overcome the utility opposition by strongly advocating CPUC elimination of these new departing load charges.

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[4] Opening Briefs are due October 29, 2007; reply briefs are due November 13, 2007.

C. Due to Recognized Efficiencies, CHP Is A Preferred Resource with Higher Loading Order Placement Than Bulk Utility Power; The Draft IEPR's Recommendation For Equal Treatment Should Be Revised Accordingly.

The Draft IEPR recognizes the efficiencies achieved by CHP, and large CHP in particular.

> *These systems use waste heat for either process or electricity generation needs which results in very efficient use of fossil fuels. Large CHP units appear to offer the greatest fuel efficiency of available DG technologies.*

(Draft IEPR, at 192). As detailed in prior filings in this docket, on a weighted average basis, all CHP QFs on SCE's system achieve an extraordinary 73% efficiency level (LHV). (*See* Comments of CAC/EPUC on the DG and Cogeneration Roadmap for California, filed May 21, 2007) Moreover, as Mr. Schoenbeck explained at the May 7 Workshop, CHP systems, when compared properly to bulk utility power, are simply more efficient:

> *You need to compare an apple to an apple and you need to compare the same technology...*
>
> *the most appropriate comparison is to have it be the same technology, the same vintage of technology, so by default CHP will always win. You can take a combined cycle plant like La Paloma and have a heat rate of 7,000. If you take that same combined cycle plant and put it in a CHP system, it will have a substantially reduced rate. So for the same technology of same vintage CHP will always win.*

May 7, 2007 Workshop Tr., 141 (CAC/EPUC, Schoenbeck). The Draft IEPR, however, suggests that efficient CHP export power be afforded equal treatment to bulk utility power. "*The CPUC should adopt revenue neutral programs that would place high efficiency CHP on an equal footing with bulk power from utilities.*" (Draft IEPR, at 194) This suggestion appears to be a well-intentioned effort to enable unimpeded CHP power exports and encourage the development

of new CHP facilities. Large CHP export power, however, consistent with established Energy Commission policy, should be treated as a preferred Loading Order resource over bulk utility power, as either energy efficiency or DG. In fact, the Draft IEPR recognizes this elsewhere, suggesting treatment as energy efficiency or creation of a DG portfolio standard. (*See* Draft IEPR, at 194 "*develop a DG portfolio standard... treat DG like efficiency programs*").

The Energy Commission should modify the suggestion as follows:

The CPUC should adopt revenue neutral programs that would enable ~~place~~ high efficiency CHP to more easily export power to interconnected ~~on an equal footing with bulk power from~~ utilities.

D. Continued Energy Commission Support for IOU Procurement from CHP, Particularly New CHP, Is Requested.

The 2005 IEPR included the following key actions for CHP:

⇒ *Streamline utilities' long-term contract processes so that CHP owners can easily and efficiently sell their excess electricity to their local utility* (IEPR, at 78)

⇒ *By the end of 2006, the CPUC should require IOUs to buy, through standardized contracts, all electricity from CHP plants in their service territories at their avoided cost* .... (IEPR, at 79)

⇒ *By the end of 2006, the Energy Commission and CPUC should collaboratively translate this goal (5400 MW of CHP by 2020) into annual IOU procurement targets.* (IEPR, at 77)

These 2005 IEPR recommendations helped re-focus a spotlight on the need for a viable long-term contract policy at the CPUC for existing and new large CHP facilities. It is at least in part due to these pointed 2005 IEPR statements and strong Energy Commission support for CHP that the CPUC established its Prospective QF Program, in D.09-07-040. Indeed, the first of these two 2005 IEPR action items above are being implemented as part of the Prospective QF

Program adopted by the CPUC on September 20, 2007; these actions and the Prospective QF Program should serve to retain the benefits of the existing CHP facilities for the State of California. The Draft IEPR's discussion (on page 192-193) of the CPUC's decision on QF pricing and policy (D.09-07-040) would benefit from inclusion of the following update:

> *A revised proposal ~~is currently circulating~~ was circulated, with an alternate decision proposed by Commissioner Grueneich. ~~When this decision is finally made,~~ It was anticipated that the final decision ~~it~~ could remove the major barrier of uncertainty that has helped to stall development of new distributed generation, especially combined heat and power projects. A final decision was adopted in September 2007. However, while the final decision, it is hoped, will help preserve existing CHP QF capacity for the state, the development of new CHP projects remains uncertain. The CPUC's Prospective QF Program provides for utility procurement of only an additional 10% over existing QF capacity; the necessary ability to export power to the interconnected utility remains uncertain for new, large CHP QFs. This will not meet the 2005 IEPR goal of 5400 MW of new CHP by 2020.*

The Draft IEPR also says that "*by allowing large CHP projects to find customers for their excess generation and to export power at wholesale prices, more than 2,400 megawatts of CHP generation output could be available for export.*" (Draft IEPR, at 190) While this sounds like a good idea, the difficulties in finding such customers in the current wholesale market must be recognized. There are relatively few, viable wholesale purchasers – SCE, PG&E and SDG&E – for CHP export power.

When considering a "large" block of baseload power (anywhere from approximately 20 to 300 MW), the only real entity readily able to take such large blocks is the IOU. Prudent utility practice requires a minimum amount of contingency reserves to address, among other concerns, forced outages of generation serving load. The current WECC standard requires that the operating

reserves be equal to the greater of the loss of the single largest contingency (e.g., the largest single generating unit serving load) or the sum of 5% of hydro generation and 7% of generation. *See* WECC Standard BAL-STD-002-0 Operating Reserves, http://www.wecc.biz/documents/library/Standards/BAL-STD-002-0.pdf. In the case of a CCA, a large CHP facility's 80 MW individual generating unit could very well be the single largest supplier of load or the only supplier of load for smaller CCAs. For example, a CHP unit selling its 80 MW to a CCA serving 100 MW of load (equivalent to approximately 100,000 residential customers) would be the CCA's single largest supply contingency. This would require the CCA to arrange for a minimum alternative energy supply equal to 80% of its total load when the CHP unit is out of service. Also, the low load factors of CCAs serving residential load create a potential mismatch between the CCA's baseload requirement and the "large" CHP's need to generate in a sustained baseload mode. Given these operating realities, only very large load serving entities—such as SCE and PG&E – provide a large enough "market" for CHP output. It would be better for CHP facilities to simply have standard offer contracts with the interconnected IOUs rather than "access" to a wholesale market. These basic facts should be recognized in the 2007 IEPR.

E. The Natural Gas Procurement Recommendation Should Be At the Option of the CHP Customer and Should Not Result in Any Additional NBCs.

The Draft IEPR, on page 194, makes the following recommendation:

Requiring the utilities to procure natural gas for combined heat and power plants at customer sites on the same basis they do for central power plants.

CAC/EPUC could support this approach to natural gas procurement under the following two conditions:

> *(1) the program should not be mandatory, recognizing that large scale CHP facilities self-procure; and*
>
> *(2) the program should not lead to additional nonbypassable charges.*

These conditions should be added to the recommendation on page 194.

F. A GHG Recommendation Should Be Included to Ensure Appropriate Treatment of Key CHP Resources.

Lastly, CAC/EPUC propose a recommendation that ties into the textual discussion on CHP. Referring to recognized CHP efficiencies, the Draft IEPR states, "*The carbon-reduction paradigm established by AB 32 should place particular value on achieving these efficiencies rather than meeting electric and thermal loads separately.*" (Draft IEPR, at 190) As the Draft IEPR text notes, CHP is critical to achieving the State's AB 32 GHG emissions reductions goals:

> *However, the importance of keeping this DG capacity in the system is elevated by the state's need to reduce greenhouse gas (GHG) emissions as part of AB 32. CHP in particular offers low GHG emissions rates for electricity generation taking advantage of fuel that is already being used for other purposes. These systems use waste heat for either process or electricity generation needs which results in very efficient use of fossil fuels. Large CHP units appear to offer the greatest fuel efficiency of available DG technologies.*

(Draft IEPR, at 192) It is of utmost importance that these key facilities are properly treated in the context of AB 32. Accordingly, the following recommendation should be added to ES-11 and page 195:

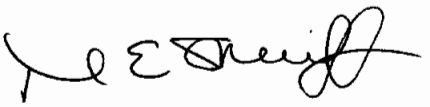
- *Adopting GHG measures and regulations that fully reflect the benefits of CHP when compared with separate production of thermal and electric energy.*

III. CONCLUSION

For all of the foregoing reasons, CAC/EPUC urge modification of the Draft IEPR as detailed above and request continued Energy Commission advocacy for the 2007 IEPR goals and CHP resources.

Dated: October 19, 2007

Respectfully submitted,



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